

DECLARATION AND POWER OF ATTORNEY

DECLARATION:

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe, the below named inventors are the original, first and joint inventors of the subject matter which is claimed and for which a patent is sought on the invention for VIDEO TRANSCODER WITH DRIFT COMPENSATION, the specification of which is attached hereto unless the following box is checked.

[] was filed on > as Application Serial Number > and was amended on > (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information which is material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

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MH-5073

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# 1. Import packages
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import warnings
warnings.filterwarnings('ignore')

# 2. Load data
data = pd.read_csv('data.csv')

# 3. Data exploration
print(data.shape)
print(data.info())
print(data.describe())

# 4. Data cleaning
data.dropna(inplace=True)
data.drop_duplicates(inplace=True)

# 5. Data visualization
sns.pairplot(data)
plt.show()

# 6. Feature engineering
data['new_feature'] = data['feature1'] * data['feature2']

# 7. Model training
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(data[['feature1', 'feature2']], data['target'],
                                                    test_size=0.2, random_state=42)

from sklearn.linear_model import LinearRegression
model = LinearRegression()
model.fit(X_train, y_train)

# 8. Model evaluation
y_pred = model.predict(X_test)
mse = mean_squared_error(y_test, y_pred)
r2 = r2_score(y_test, y_pred)

print('MSE: ', mse)
print('R2: ', r2)

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